REMARKS

A. Formal Rejections

Claims 83-91 have been rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicant respectfully directs the Examiner's attention to paragraph [0074] of the specification which describes generating an interface layer with a stoichiometric deficit of the reactive component (or DEF) that is less than the stoichiometric deficit of the reactive component of the first layer (or DEF_1) to lower the optical loss of the multilayer coating. *See* also, specification at ¶ [0016]. The Examiner previously objected to the use of the terms DEF and DEF_1 in the claims. In response, applicant simply replaced the abbreviated terms DEF and DEF_1 with its full meaning stoichiometric deficit of the reactive component (i.e., oxygen) of the interface layer and first layer, respectively. Accordingly, applicant respectfully requests that this rejection be withdrawn.

Claims 87-88 have been rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for using the term "DEF". Claims 87 and 88 have been amended to replace the term "DEF" with its full meaning stoichiometric deficit of the reactive component (i.e., oxygen) of the interface layer. Claim 83 has been amended to recite that the interface layer has a reactive component deficit that is smaller than the reactive component deficit of the first layer. Accordingly, applicant submits that claims 87-88 are definite consistent with 35 U.S.C. § 112 and respectfully requests that this rejection be withdrawn.

Claims 55 and 83-91 have been rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite because it is unclear as to what stoichiometric deficit relates to. Applicant respectfully submits that the stoichiometric deficit is a well known term to

one of ordinary skilled in the art. For example, instead of reactive sputter depositing a fully stoichiometric SiO_2, the claimed invention deposits $SiO_{1.6}$ which has an oxygen deficit (i.e., stoichiometric deficit of reactive component). *See, e.g.*, specification at ¶ [0019]. Claims 55 recite that the stoichiometric deficit of the reactive component (i.e., oxygen deficit) in a spatial area of the sputtering apparatus and Claims 83-91 recite that the stoichiometric deficit of the reactive component (i.e., oxygen) in the interface layer is smaller than the stoichiometric deficit of the reactive component in the first layer. That is, in accordance with an exemplary embodiment of the claimed invention, the interface layer having oxygen deficit (i.e., a stoichiometric deficit of the reactive component) smaller than the first layer is reactive sputter deposited to provide a barrier to protect the first layer. *See* specification at ¶ [0019]. Accordingly, applicant submits that claims 55 and 83-91 are definite consistent with 35 U.S.C. § 112 and respectfully requests that this rejection be withdrawn.

B. Prior Art Rejections

Claims 55-74, 78 and 80-91 have been rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 6,217,720 to Sullivan et al. (hereinafter "Sullivan"). Claims 75-77 and 79 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sullivan. Applicant respectfully traverses these rejections.

In response to applicant's argument that Sullivan fails to teach or suggest a method for producing one or more coating on a moving substrate using a combination of reactive sputtering deposition with a subsequent plasma treatment, as required in claims 55-91, the Examiner indicated that "[w]hile the Specification does appear to explicitly tech the plasma treatment being subsequent, the claims do not require the plasma treatment to immediately follow (i.e., subsequently) the reactive sputtering." *See* Office

Action at 8, ¶ 12. To squarely address the Examiner's comments, applicant has amended claims 55, 56, 83 and 85 to explicitly recite that the coating on the substrate is modified by subsequent plasma treatment. Accordingly, applicant respectfully submits that pending claims 55-91 are in condition for allowance because Sullivan fails to teach or suggest the claimed reactive sputtering deposition with a subsequent plasma treatment.

Hence, Sullivan does not anticipate nor render obvious pending claims 55-91 "Because the hallmark of anticipation is prior invention, the prior art reference — in order to anticipate under 35 U.S.C. § 102 — must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements 'arranged as in the claim.'" *Net MoneyIN, Inc. v. Verisgn, Inc.*, 545 F.3d 1359 (Fed. Cir. 2008). Even the Examiner has essentially admitted that Sullivan merely "discloses that deposition power and oxygen flow must be rapidly adjusted to maintain a desired stoichiometry of the coating." (Office Action at 4). As noted herein, it is the subsequent plasma treatment that modifies the stoichiometry of the coating on the substrate.

Further, Sullivan merely utilizes optical measurement to measure the thickness of the coating, and does not teach or suggest monitoring the coating to adjusting the optical properties of the coating after the plasma treatment, as required in claims 59 and 60. "To imbue one of ordinary skill in the art with knowledge of the present invention, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim of the insidious effect of hindsight syndrome, wherein that which only the inventor taught is used against the teacher." *W.L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983). Applicant respectfully submits that the Examiner cannot use hindsight gleaned from the present invention to modify the clear teaching of the prior art reference to render claims unpatentable. The prior must to be judged based on a full and fair consideration of what that art teaches, not by using Applicant's invention as a

blueprint for gathering various bits and modifying the pieces in an attempt to reconstruct Applicant's invention.

Therefore, the Examiner has failed to establish a *prima facie* case of anticipation or obviousness because Sullivan fails to teach all of the claim limitations of pending claims 55-91.

Furthermore, as to the dependent claims, applicant incorporates herein all of its arguments from prior amendment filed on March 18, 2009.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-0624, under Order No. RPP 201 US (10505883) from which the undersigned is authorized to draw.

Respectfully submitted,

By _____

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